

# MASSACHUSETTS PLOUGHMAN



VOL. LXIII. - NO. 22

BOSTON, MASS., SATURDAY, FEBRUARY 20 1904

WHOLE NO. 3238

**MASSACHUSETTS PLOUGHMAN**  
JOURNAL OF AGRICULTURE  
Official Organ of the N. E. Agricultural Society.

**MASSACHUSETTS PLOUGHMAN PUB. CO.**  
Publishers and Proprietors.  
ISSUED WEEKLY AT  
NO. 5 STATE STREET,  
Boston, Mass.

**TERMS:**  
\$3.00 per annum, in advance. Single copies 5 cents.  
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## The Coming Canal.

Those alarmists who were afraid that Colombia would not get her due because the United States acknowledged the republic of Panama may now rest easy, for after the ratification of the treaty by the National Senate, which is sure to come, there will be, unless all signs fail, an arrangement whereby part of the concessions given by us for canal rights will be for the benefit of Colombia as well as Panama.

There is a proposition looking to the payment of two million dollars in cash by our Government to the new republic, and for the reservation of eight million dollars by the United States, part of which shall be paid to Colombia in behalf of Panama. It will be remembered that ten million dollars were promised for the canal concessions. From this it would seem that no injustice will be done to either country, but, on the contrary, both will benefit from a state of affairs which will allow them to become friendly neighbors. Both would rather have a state of peace than one of war, and it is better for them to dwell together amicably than to engage in a long contest that would result in nothing advantageous to either of the contestants.

Panama has showed her pluck in resisting the folly at Bogota, and Colombia has learned the lesson that a bird in the hand is worth two in the bush. She no doubt realizes now that she lost Panama through the greediness of her politicians, and evidently will be soon prepared to acknowledge that the United States has no desire to deprive her of a particle of her rights.

## Can the Moths be Destroyed.

The means to be adopted in fighting the gypsy moth would seem to depend upon whether the pest is to be exterminated or merely held in check. If the attempt is to kill out the moths entirely, the only sure way is to put on a big force of trained men to destroy eggs, spray trees, cut and burn brush, etc., over the infested area. This is the plan which was meeting with success when the usual appropriation was cut off by the State at just the time when a successful end seemed to be in sight.

If this plan of work is to be resumed, the appropriation should be made in advance in such a way that it will cover a long series of years, not making the completion of the plan to depend on the whim of successive legislatures, each with its host of new members to be won over and convinced of the need for the appropriation. When the number of moths has become so great as to reduce that they attract comparatively little notice, there is sure to appear a crop of klookers who insist that the State's money is being wasted and that the appropriation should be withheld. For this reason, if for no other, the work should be under control of the national Department of Agriculture, in order that a long campaign could be carried on under the same management and with less danger of interruption.

According to the present outlook, however, the State must work alone for the present. A very large appropriation covering many years in advance is recognized as the only adequate measure. But State expenses are very heavy in Massachusetts this year, and new taxes are sought. The additional burden of a strong campaign against gypsy and brown-tail moths will certainly meet with opposition, even if a part of the cost is to be assessed on towns or land owners in the infested districts.

The alternative plan is to try to reduce greatly the number of moths by importing certain little insects which feed upon them. Extermination could not be hoped for by this plan, because as soon as the moths become rather scarce the insects which prey upon them would become scarce also, and die out for lack of abundant food. It is a plan which, although imperfect, is far better than doing nothing. President J. H. Bowditch of the Massachusetts Forestry Association reports the offer of an expert now living on the Pacific coast, but a German by birth, and familiar with gypsy-moth conditions in Europe, who, he said, if hired by the State, would import kypsy moth parasites which he could guarantee would do no harm in this country other than to the moth pests. Mr. Bowditch said that in correspondence with himself, as a representative of the forestry association, the expert in question had expressed himself as ready to take a contract for introducing parasites and practically getting the moths in check within four years, the entire expense to be \$15,000 for each year, or \$60,000 in all. His method would be to have a certain part of the infested district, say one square mile, left free from restrictive work, then to liberate the imported parasites in this reserved section so that they might get a hold in this

country and find plenty of gypsy and brown-tail moths to feed on at first. In four years, he held, the parasites would grow numerous enough to hold the moth in check, although for the first two years it would not be likely that any great showing could be made.

This plan is certainly inexpensive, and would be better than doing nothing, but experience with other insects has shown that parasites will not wholly kill them out or prevent a great deal of injury being done. It would be cheaper in the end to go on with the old plan for complete extermination. There are already a good many native parasite insects feeding on the gypsy moth, but the number of the moths has, nevertheless, vastly increased during the recent year when active measures to destroy them have been withheld.

Without doubt the only plan which will properly meet the emergency will be to set a force of men to work at once destroying the eggs, a task which must be done before spring or not at all. The warfare must be waged all through the season and followed up year after year until not a moth can be

one of the three vulgarities alluded to actually happened. For, upon investigation, it was found that the account was really pure fiction (otherwise known as "fake"), the only excuse for which was that its author needed a little extra money.

Just here it is that the indictment against the "yellows" must be most stern. For while self-respecting journalism discredits fictional reporting and insists that its contributors in no case do more than hold the mirror discreetly up to nature, "yellow" journalism encourages the resourceful "faker." Small wonder, therefore, that the public comes readily to disbelieve almost anything it reads in the papers! Yet that the disbelieving attitude of mind is very unfair to a large number of serious, able and conscientious newspaper workers any broad-minded person must grant. For the press is among the most important of our twentieth century institutions.

The very pretty story told of Pope Pius X. and the journalist is wholly convincing. "My predecessors," Sarto recently remarked to a young newspaper man who had sought him out, "were wont to bless the

results would not affirm the trial a success on account of the long shipment and the time lost by the cattle in becoming accustomed to their new surroundings.

The horticultural department is conducting a series of experiments in cold storage of fruits. A new Linde Refrigerator system has been installed and consequently important, reliable and up-to-date results will be obtained. Increased interest is shown in the experiments with grains, roots and other farm crops sent out to different parts of the country. Valuable information as to the adaptability—hence profit of several crops is being compiled in this way.

Our students are alive to the subjects of the day, and are sanguine for the agricultural future of America. The opening of the vast arable Western plains creates a great demand for trained men, and offers good opportunities for careful investment.

Our college stands for progress in agricultural lines. We realize that, although a man may gain valuable knowledge from close observation of his surroundings, and may acquire valuable information from

B. Gurlier, of Illinois, who was awarded gold and silver medals at Paris Exposition, and who retails his milk at fifteen cents per quart, as saying that with milk obtained from sanitary stables, it is preferable to cool under a closed cooler, thus avoiding exposure to air. He takes milk immediately from cow and reduces temperature from 90° F. to below 40° F. in less than one minute.

It was the consensus of opinion that milk produced under the most sanitary conditions need not be subjected to pasteurization or sterilization, but that these were necessary for milk collected promiscuously. Speaking of sorting and silage for dairy cows, Mr. Lane said: "On land at New Jersey Experiment Station, which formerly required four acres for one cow, 31 cows were kept on one acre for six months by the use of silage. The following crops were used: Rye, wheat, clover, cow-peas, soja beans, corn, mixed grasses and barley. The cows were kept in summer in a clean field well watered, drained and shaded, and feed was hauled to them. Two or more crops per year may be grown on the same land. It was plowed deep once. The succeeding

that line. Last year when nearly everybody hereabouts failed to grow much corn, he had a good crop, having planted seed corn that had been kept in a dry place for seven years. The success may have been in part due to early planting, several others having had fair crops who had planted early. C. E. LEAVITT, Franklin County, Mass.

## Outlook for Market Gardening.

Among the subjects of the somewhat informal discussion at the meeting of Boston Market Gardeners, Saturday, Feb. 6, were considered the prospects of the business for the coming season, and the various conditions needed for success. Several of the speakers contended that so good a season as the last one could not be expected to follow. The high prices last year would encourage heavy planting both North and South. Manure is scarce and high, and a bad summer might be expected to follow a severe winter.

Others believed the prospects were good so long as the general business interests of the country continued to flourish, and in speaking of the past season they asserted that it had been unfavorable according to the experience of many farmers and gardeners. Cabbage had been high because it failed to head well in most cases. Celery has been stunted in growth and decayed easily. Beets were a small unencorement. Tomatoes set and ripened poorly. With hothouse vegetables the present winter was generally conceded to be unfavorable on account of the prevalence of so much cold and cloudy weather.

Mr. Ward of Newton told of his experience as shown by a book account for the past fifty years. Periods had occurred from time to time when fruit had been relatively higher priced than vegetables, and then everybody set strawberry plants. Then would follow periods when vegetables paid best, and when fruit was in over-supply. He believed farmers should keep account of each crop in order to know which crop didn't pay and to choose those to which the land proved best suited. In former times it had been necessary to choose crops that would divide the labor so that it would not all come at one time. Now it is possible to hire gangs of Italians and other temporary help to any extent desired.

The suggestion in regard to bookkeeping started a side discussion along that line. Mr. Stone and others maintained that a gardener doing a small to medium business could tell near enough whether it was paying him. "Pay your bills and count the money in your pocket," said Mr. Stone, humorously, "then bank the surplus or put it into copper stock."

Mr. Sullivan argued that this plan was not businesslike and would not serve to separate the paying crops from the unprofitable ones. There was need of keeping a record to know just what has been done and what should be done another season. "Farming without an account is like trying to remember what you said yesterday," Mr. Ward told of a suburban gardener who employed a bookkeeper, and knew the exact sales and prices at any time for years past. Mr. Ward knew of gardeners who were every year growing crops that did not pay back what they cost.

The price of manure was incidentally considered. It appears that gardeners who live some distance from Boston and who have the manure sent by rail are obliged to pay more than is generally supposed by farmers. It can be bought for \$1 per cord or a little more at the stable, but costs, according to president W. W. Rawson's statement, \$4 per cord delivered in Arlington by freight, besides cost of teaming from car to farm, and at a greater distance the cost is heavier. Yet many of those present found it better to have the manure freighted rather than to team it. One gardener quoted manure as high as \$9 a cord in his locality. The incident was related of a gardener who paid \$1000 for the manure to use on his place of only sixteen acres.

Speaking again of the general outlook, one gardener saw signs that the coming year should be more favorable than any for five years past. Another said that the political campaign would check business activity, and much money which ought to go into business would be spent in the campaign. Mr. Stone thought that in any season there would be as many who would consider it a poor year as there would be who would pronounce it a good one. It was asserted that one cause of so many young men leaving the farms was the lack of system and businesslike management, the absence of which disgusted the younger element. Several speakers declared that most of those who had left the farms for the city would have been far better off to have remained on the parental acres had they practiced there the same degree of system and industry which they were forced to adopt in the city.

The increase of general knowledge concerning the finer points of modern farming is a matter of note, especially the spread of such knowledge during the past ten years of bulletins and institutes. It is very common now to find at the institutes a number of farmers fully able to follow the speakers with a line of searching questions in a way which proves they have been doing some hard thinking and have, perhaps, worked out some new ideas fresh from the field and stock barn. Most of the younger men, even those who seldom attend the meetings, are often able to talk of their personal experiments with the latest methods with stock and crops. An increased confidence in some of the newer ideas is evident, and although the term "scientific farming" is still distrusted, there are growing numbers who are in a careful way making use of the best teachings they can find. Farming has, in fact, reached the stage where hard, clear thinking must go with hard work to make a first-class success.

**GUERNSEY COW**  
Imp. Charmante of the Girard 14442.  
Adv. R. No. 74.  
1st Prize English Royal Show, 1904.  
Owned by Mr. H. McK. Twombly  
Florham Farms, Madison, N. J.

**OFFICIAL YEARS RECORD**  
11874.76 lbs. Milk, 676.48 lbs. butter fat.  
Best official Years Record in the World.

found. It has been stated on the best of expert authority that this result could be reached in a few years. If a rapidly spreading epidemic like the foot and mouth plague could be stamped out completely and at an expense not excessive, in view of the vast property interests in danger, it would appear that slowly spreading insects like the moths of eastern New England might be stamped out also.

## The Trail of the "Yellows."

It seems worth while, now that one of the New York papers of large circulation and small intelligence is about to be established here in Boston, to consider exactly what the trend is against which the enemies of "yellow" journalism so often feel called upon in these days to protest. That they do protest we very well know. When the alumni of Brown University met at the Vendome a few weeks ago for their annual dinner, the object chosen for their annual dinner, the subject of their vigorous condemnation was "yellow journalism," and he was but one intelligent after-dinner speaker among many. "The fault we educated men find with the yellows," he said, "is that they distort in that they give more space to back-stairs gossip than to the opinions of statesmen; that they have more room for the bar-room than for the Supreme Court; that they devote more attention to Alexander Dowle than to all the prophets of righteousness on the American continent. They distort life I repeat, and if our children are fed upon them, they themselves must become distorted. The true type of journalism, on the other hand, helps us to see life sanely and whole and keeps to the front the really important issues of our time."

How insidious the "yellow" microbe has become is shown by glancing into almost any one of our self-respecting papers. One of the most reputable of these, we might almost say the leading sheet of Boston, printed recently a little article concerning the condition of Brookline's streets, for which plenty of headings, decent and yet sufficiently descriptive, might easily have been found. The sheet in question, however, put over its four inches of weather "story," the words "Bad Day for Lingerie," which shows distinctly the trail of the "yellow."

Mr. Bok has recently told us of reading in a newspaper an account of a woman's luncheon where champagne flowed like water, where twenty out of thirty women present smoked cigarettes with their coffee and devoted all the remainder of the afternoon to playing bridge whilst for high stakes. The article, says Mr. Bok, was convincingly written, and it was generally credited. As a matter of fact, however, not

swords of those who would fight for the faith. But the pen of the journalist is the sword of today, and I therefore bless yours." Nobly thought and sweetly said! There is even a kind of reason d'être in the penny paper as a very interesting article contributed to a recent Outlook by Mary White Ovington makes us see. For this paper is written primarily for those who read no other printed message.

Looking closely at its stories we soon see that their aim is to provide interesting fiction first, and news only secondarily. They dwell on details, therefore, quite unimportant to the reader who desires a simple statement of the facts, but needful, no doubt, to him who seeks a thrilling tale. "I well remember," Miss Ovington writes, by way of illustration, "reading of a murder where the man was accused of killing his wife. The picture of their room, the exact location of the bed, door and window held my unwilling attention. The crime as news was in no way entitled to the space awarded it. But it was a 'Study in Scarlet,' and while I might prefer mine as told by Mr. Conan Doyle, it was not difficult to realize that others would enjoy the excitement of hearing of this present-day murder."

To the poor man in the tenements, in other words, the penny sheet stands for melodrama and fiction and color in life. While we may deplore this we can—in his case—understand and perhaps forgive it. His days are gray, his horizon very limited. Moreover, merely to spell out the printed words means, in very many cases, considerable intellectual effort. But when the intelligent, particularly intelligent women, permit themselves to read the yellow sheets something is distinctly wrong with them. The time has come, it seems to us, when there should be conscience concerning the newspapers one refuses to read, as concerning the sweat-shop goods one does not buy and the demoralizing plays one does not witness. Let us who try to be decent and who claim to be intelligent take a stand, here and now, against the oncoming trail of the "yellows."

## From a Young Farmer Student.

Canadians have developed an agricultural college at Guelph, Ont., which enjoys well-merited fame. Scientific problems connected with practical farm work are constantly the subjects of patient research by the different departments of this institution. The agricultural department is continuing its experiments along the feeding of fattening hogs and steers. Experiments in crossing breeds of hogs prove that a valuable bacon hog can be obtained from a cross of the Yorkshire and Tamworth. Experiments on finishing range-fed steers for market were carried on with a herd of ranch steers imported from the West, but

good agricultural journals, he can gain infinitely more from these indispensable sources after investigating the principles that underlie the phenomena of the farm, and can reap much greater profit from his well-directed efforts. H. G. BELL, Ontario.

## Ohio Dairymen Meet.

Ohio dairymen to the number of about 250, met at Ohio State University, Jan. 27-29. In addition to good locals, several out-of-State speakers were present. The association has made a feature of securing the best possible talent for these annual gatherings. Professor McKay of the Iowa State College judged and scored the butter and cheese for the third successive year. He complimented the dairymen, saying the product had improved about thirty-eight per cent. over previous scoring. The lowest butter score was eighty-nine per cent., while most went above ninety-four per cent. The highest was 97½ per cent. Three firsts were won by W. C. Barrett of Belmont County, a young man of about twenty years of age. Young Barrett is a product of the Ohio dairy school and manager of one of L. P. Bailey's large creameries.

Professor McKay said that other things being equal, the butter in the nearest package would unconsciously influence judge and buyer in its favor. Several scientific men and practical business men confirmed the statement. Professor Lane, United States Department of Agriculture, said in part: "The retail milk trade is yet in its infancy. The demand for rich, pure, wholesome, sanitary milk is on the increase. There is no secret in the production of fancy milk. The utmost cleanliness of cows, stables and workers, plenty of sunshine and fresh air in the stables, proper food and rapid cooling of the milk are essential. Rapid cooling is very important. All milk should be standardized and kept near that standard. As example of what cleanliness and rapid cooling will do, he cited the instances of the three gold-medal winners for sanitary milk from the United States at the Paris Exposition. This milk, as clean as it is possible to get it, cooled rapidly, put in ordinary milk cans with two caps on bottom, covered with paraffine, it remained sweet eighteen to twenty days. Aim along the lines of cleanliness, uniformity and cold in preparing a high-grade product, rather than methods to destroy bacteria. The quart system of selling was unfair to producers, as the man who fed and bred for high fat content got no more for milk than the man with poorer cows. It costs more to produce rich, sanitary milk, but there is a good demand for it."

In the discussion, J. Moldenhawes spoke of the value of rapid cooling and of the

preparation was with a right-lap, four-horse, disk harrow. Fifty cows consumed about 15 tons daily, or 270 tons in six months. They were kept on ten acres of sorting corn. This succulent appetizing feed in pleasing variety was furnished them the year round."

Mr. Wells, United States dairy inspector, explained manufacture of process butter, showed samples he had bought in Columbus at from twenty to twenty-five cents per pound. It was bought of the dealers for ten cents per pound. He blamed the small two and four cow dairy for this product. The annual output of the thirty-two factories in the United States is about fifty-five million pounds. Of this product, Ohio's eleven factories produce about 21 million pounds. Professor Decker said that the farmers of Ohio are losing annually from this one waste \$1,000,000. "We must carry education to them."

Professor Smith of Michigan Experiment Station blamed the small dairies and ignorant, careless management for the large output. He urged larger herds, better care and feed, better sanitary conditions and application of practical business methods. Professors Smith and Lane both deprecated the tendency to rely too much on commercial fertilizers instead of legumes and careful use of manure. "The man who carries his manure in one vest pocket will soon be able to carry his product in the other," said Professor Smith.

Much interest was aroused by Professor Vivian's paper on scale peeps in cheese making. He claimed as its possible advantages over rennet that it was dry and could be kept indefinitely without deterioration. The supply was limitless, and it was a home product. There was no appreciable difference in the vat or curdling room between peeps and rennet cheese, the flavor is uniform, and we have put them on the same critical market that had formerly used rennet cheeses, and there was no complaint. Both peeps and rennet manufacturers had skilled and courteous chemists here. The peeps cheese scored ninety-eight per cent. at Ohio State Fair in 1903.

John Nichols of Cleveland was elected president; E. B. Smith, Columbus, vice-president; D. A. Crowner, Columbus, secretary and treasurer. The key-note of the whole session was education and application of business principles to overcome obstacles in the pathway of the dairymen. MARY E. LEE.

## Old Seed Corn.

In connection with your recent account of French experiments supporting the value of old seed for certain crops in which foliage is not the main requirement, the experience of one of our local farmers is along



## Dairy.

## Butter Market Slightly Better.

Dealers are asking more for leading grades of creamery goods, but the buyers respond with reluctance, and the actual average of sales reported shows only a slight improvement. Receipts in Boston are moderate, but demand is rather light, consumers taking only medium quantities. Most lots of fresh butter are a little off in quality as might be expected from the weather and at this time of year. Very little creamery butter from any source grades to sell above 22 cents. What few lots of strictly fancy Northern stock are to be had readily bring top prices, as quoted elsewhere, but for other grades, which make up the bulk of present offerings, the trade is slow to give any great advance over last week's prices. Storage creamery butter has a fractional advance for best grades. Box and print butter is a little higher also, but supply is a little in excess just now.

Chapin & Adams: "For most sales market shows no special improvement. Best lots have been marked a little higher, but the advance is hard to secure. The consumers are unwilling to use either butter or eggs freely at present prices. There is no prospect of butter exports for the present. People are reducing the use of eggs, restaurants and boarding-houses are cutting them from the bill of fare, and it looks as if eggs would for the time at least go out of fashion as an article of diet until the supply of fresh stock increases. At present but few are received and few sold."

Cable advices to George A. Cochran from the principal markets of Great Britain are slightly higher and firmer on all descriptions of finest grades of table butter. Under grades, especially the lowest, are in large supply and very dull, with prices most irregular and in buyers' favor. The small lots of American butter landing this week meet with little favor so far. Finest Danish 23 1/2 to 24 cents. Finest Australian and New Zealand 20 1/2 to 21 1/2 cents. Finest Canadian 19 1/2 to 20 cents, finest Russian 17 1/2 to 18 cents. Foreign cheese markets are unsettled under rather heavy arrivals from Canada and New Zealand. Some holders are weakening at buyers' persistency in buying from hand to month, and are accepting lower prices to move quantities. All markets are closing for the week with an undercurrent of weakness that may lead to a drop in prices the coming week. Finest American and Canadian 11 to 11 1/2 cents.

Cheese is a little lower in Boston, but holds about steady in New York. The decline in Boston is only a small fraction, and does not apply to all grades. At New York fresh receipts are running lighter, but with stocks here fairly large, holders are still inclined to meet the demand promptly as it comes along on the basis of prices ruling for some time past. Exporters are looking around for under-priced full cream and skims, but liberal inducements are generally necessary to attract attention. Receipts at Boston for the year were 1,030,701 tubs, 1,221,389 pounds, 54,347,056 pounds of butter, 236,320 boxes of cheese, 200,251 boxes of cheese for export, and 1,033,165 cases of eggs, against a record of last year of 1,048,429 tubs, 1,230,996 boxes, 54,574,429 pounds of butter, 169,956 boxes of cheese, besides 59,424 boxes of cheese for export, and 1,164,777 cases of eggs.

## A Wonderful Jersey Heifer.

We give below the yearly authenticated butter-fat estimate and milk yield of Tonona 9th of Hood Farm 172718, which beats the world's record for a two-year-old. This great heifer was bred and is owned at Hood Farm, Lowell, Mass.

To those not familiar with the meaning of an authenticated test, it may be interesting to explain that the American Jersey Cattle Club, realizing the great value of yearly records as proving the true worth of the dairy cow, voted to accept yearly butter-fat records where the cow was tested for two days every month by a representative from an experiment station, such representative to be selected by the club.

Tonona 9th of Hood Farm was dropped Oct. 23, 1900. As a calf she was regarded, from a show point of view, as the most likely winner at Hood Farm, in her class, and if she had been taken to the large fairs, without doubt she would have won her share of blue ribbons.

She is bred in the lines that have proven most successful and satisfactory at Hood Farm. Her sire is Tonono, without doubt the best-bred and greatest son of Sophie's Tormentor, sire of 21 in the 14-pound list, including Elgis. Tonono has four tested daughters, with many to follow, and he is a full brother of Sophie Hudson, 19 pounds 12 1/2 ounces, 50 pounds 14 ounces milk in one day, and 11,496 pounds 2 ounces in 10 months, testing 716 pounds 14 ounces of butter.

Sophie's Tormentor is by imported Tormentor, sire of 46 in the 14-pound list, and out of imported Baron's Sophie, 19 pounds 10 ounces. The dam of Tonono is Rhoda Hudson, 14 pounds 4 ounces. She is by Catono, sire of 13 in the 14-pound list, a son of the great imported cow Osa, 22 pounds 10 1/2 ounces. Rhoda Hudson is out of Rosebud Hudson, 15 pounds 12 ounces, and the dam of three in the 14-pound list. She is by a son of Young Fancy, out of a daughter of Landseer, which makes her closely related to Landseer's Fancy, 29 pounds one-half ounce in one week and 936 pounds 14 1/2 ounces in one year.

Rose Hudson is the dam of Tonono 9th of Hood Farm. She has a butter record of 15 pounds 10 ounces, and she is by Osa's Tormentor, sire of 2 in the list.

## Yearly Authenticated Babcock Butter Fat Estimate and Milk Yield

OF TONONA 9TH OF HOOD FARM 172718.  
Made by a representative of the Massachusetts Experiment Station, appointed by the American Jersey Cattle Club and under its rules.

American Jersey Cattle Club and under its rules.											
Date 1903.	Milk. lbs. oz.	Fat. %. Fat.	Lbs. Fat.	FEED CONSUMED.							
				Bran.	Corn Meal.	Ground Oats.	Oil Meal.	Gluten Feed.	Esti. Hay.	Esti. Silage.	Pasture
Jan. 1st.	516.02	4.2	21.677	38	8	25	9½		112	480	
Feb.	958.07	4.56	42.705	84	37	84	37		195	840	
March	912.12	4.35	48.832	93	46½	77½	46½		217	930	
April	800.15	5.2	41.649	90	47	73	30	15	210	900	
May	814.14	5.7	46.448	93	36	52½	31	15½		Grass	
June	728.12	5.8	42.267	90	30	21	30	20		Grass	
July	622.13	5.8	36.123	108½			31	31		Grass	
Aug.	583.01	5.8	33.817	108½			31	31		Grass	
Sept.	604.12	5.8	35.075	105			30	30		Grass	
Oct.	521.01	6.45	33.608	108½			31	31		Grass	
Nov.	380.01	6.55	24.929	111		21	30		210	900	
Dec.	397.13	8.7	34.609	124		31	31	217	930		
Jan. 1st. 1904.	192.05	8.7	16.731	60		15	22½	15	105	450	
TOTALS.	8033.12	6.05	458.470	1213½	204½	348	381½	249½	1286	5430	
COST				\$13.25	\$2.25	\$5.25	\$5.35	\$3.25	\$9.50	\$5.75	\$18.00

In estimating the cost of feed the following prices were charged per ton: Barley, \$22.00; Corn Meal, \$22.00; Ground Oats, \$20.00; Oil Meal, \$28.00; Gluten Feed, \$28.00; Hay, \$15.00; Silage, \$2.00 and Pasture \$2.00 per month.  
Daily average milk yield, 22 lbs.  
Daily average milk yield, 6.6 to 10 lbs.  
Total cost of feed, \$62.60. Product sold as 40 per cent cream realized over \$220.00.

Oonan's Tormentor is a son of Oonan's Harry and Oonan's 3rd. Oonan's Harry was sired by Oonan's Tormentor, 45 in the 14-pound list, and is out of Kathleeta, 22 pounds 12 1/2 ounces. Oonan's 3rd is by Ida's Stoke Pogis, sire of 30 tested cows, and her dam is Oonan, 22 pounds 2 1/2 ounces, dam of 6 in the 14-pound list. The dam of Rose Hudson is Rose Perfection. She is by Stoke Pogis Perfection, the sire of 7 cows with butter records and out of imported Roseline Calais, 14 pounds 15 ounces.

Tonona 9th improved with age, and on dropping her calf Jan. 15, 1903, when 2 years 3 months and 24 days old, she was a perfect model, on a small scale, of a show shaped udder, the largest possible to imagine on a cow of her age, and her teats were long, rightly hung and beautifully placed.

When she came to her flow of milk she proved to be even better than she looked, and more than fulfilled her promise as a calf and yearling. She milked as high as 40 pounds 6 ounces in a day, but she did not come up to 14 pounds of butter in a week. Below will be found a table showing the amount of milk, per cent of butter fat, pounds of butter fat, estimated butter, and feed consumed during the year; also cash realized from the sale of her production. She received the same care as the remainder of the herd and was pastured with the other young cows of the same age.

## Horticultural.

## Trade in Live Stock and Grain.

The annual summary of domestic trade movements for 1903, as reported by the Department of Commerce and Labor, through its bureau of statistics, indicates that the distinctive feature of the live-stock trade at interior markets was the lowering trend of prices compared with those of 1902. At the end of 1902 hogs averaged \$6.39 per hundred pounds at Chicago, compared with \$4.50 in 1903, in spite of a reduction in annual supply at five markets, from 18,763,104 head in 1901, to 15,614,139 head in 1902 and 15,014,811 head in 1903. Beef-cattle prices fell from \$6.75, the annual average of 1902, to \$4.90 in 1903, with receipts at four markets increasing from 7,244,467 head in 1901 to 7,710,559 head in 1902 and 8,326,088 head in 1903. The grand total of live stock received at the five markets—Chicago, Kansas City, Omaha, St. Louis and St. Joseph—was 32,983,601 head in 1903, in contrast with 32,673,286 head in 1902 and 34,143,776 head in 1901. Provision stocks of cut meats on Dec. 31, 1903, were 147,028,951 pounds, against 178,616,100 pounds a year before at five markets reporting.

Important among staple movements at interior centres are wheat receipts at eight markets. For the crop year to Jan. 1, 1904, a total of 157,551,285 bushels was reported, compared with 174,786,255 bushels in 1902, and 161,393,479 bushels in 1901. Most marked gains were made at Kansas City, where 27,131,766 bushels arrived in the last six months of 1903, in contrast with 19,684,300 bushels in 1902, and 15,666,954 bushels in 1901, indicating how rapidly Southwestern wheat-growing areas have expanded. During the year Minneapolis milling drew heavily on this area's output, giving a North-and-South current to the domestic wheat trade and competing with the gulf and lake ports for control of traffic.

Shipments of grain by the Erie Canal from Buffalo during the season of 1903 reached the total of 17,499,117 bushels, of which 4,683,610 bushels were wheat, 6,636,297 bushels corn, 3,815,759 bushels oats, 2,003,900 bushels barley and 429,551 bushels rye. Shipments in 1902 were 16,182,634 bushels, and in 1901 18,028,606 bushels were shipped.

The average freight on wheat by way of Erie Canal from Buffalo to New York is reported at slightly less than four cents per bushel.

At five points on the North Atlantic seaboard 229,350,233 bushels of grain were received during 1903. Of this amount Portland received 11,979,461 bushels, of which 3,477,925 bushels came from American and 8,501,536 bushels from Canadian sources; Boston, 32,814,664 bushels; New York, 125,069,551 bushels; Philadelphia, 37,738,078 bushels, and Baltimore, 51,688,479 bushels. These ports received 240,725,183 bushels in 1902.

## Potatoes Higher.

Prices of potatoes, both for seed and for table, have been more than sustained for the past week, and the figures are notably higher in leading markets both East and West. Best stock at Boston is close to \$1 per bushel. Dealers are beginning to ask how much farther, if any, the advance will go. As soon as the weather moderates shipments can move freely, and the supply is likely to increase at leading markets. This condition might cause a temporary decline, but it would probably be removed soon, and there is nothing in sight at present to check the prospect of higher prices still before summer. Prices are now as high as they were in March last year.

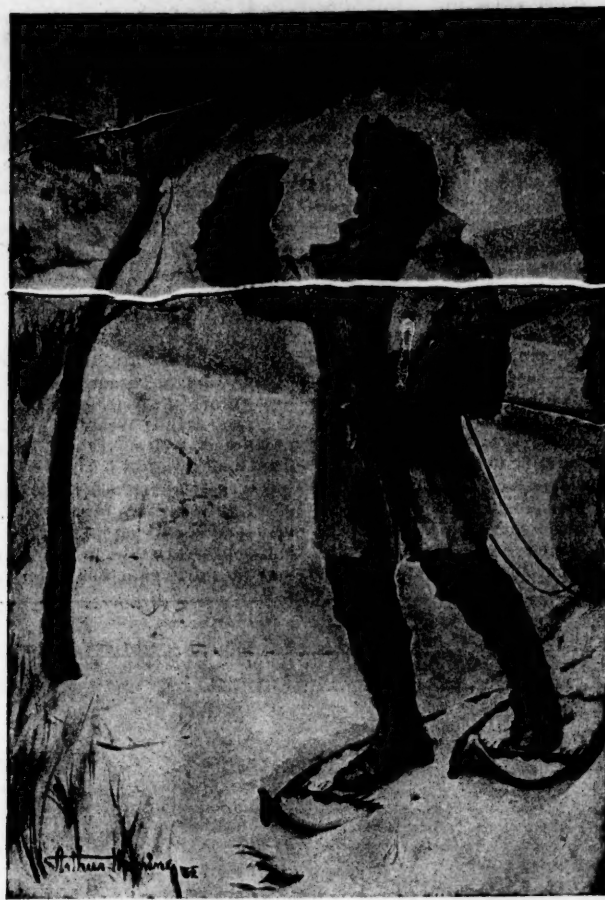
The demand from the South for seed purposes has been heavy and has considerably reduced the stock in Maine and the Lake region, in which localities the crop was largest. The provision and grain markets show a rising tendency which, if continued, would naturally help the price of potatoes. Not much is to be expected from Europe in the way of supplies, the potato crop there showing no great surplus. It is believed, in fact, that England will have to import some potatoes to eke out her own needs. So long as the price does not exceed \$3 per

barrel, there is small prospect of shipments here from Europe. Sweet potatoes are not keeping well on account of the heavy rains South at the harvest time.

In short, there is nothing in the main outlook to prevent quite a shortage of potatoes until the new crop begins to come from the South, except, of course, the possibility that the stock now in growers' hands is greater than is supposed. Thus far the course of the market has been about as suggested several times in these columns earlier in the season, and the same reasons then mentioned afford ground for a continuance of the rising tendency except for temporary setback due to weather conditions and the fluctuations of the general produce market. Growers on Long Island ask and are getting \$1 per bushel at their local shipping stations. Maine growers insist on \$1.25 for good seed stock at their local station and they get it. For table stock they get \$1.05 to \$2 per barrel. New York State growers are getting about 85 cents per bushel, Vermont 65 cents and growers in the Lake States from 50 cents to 75 cents per bushel. Those in a situation to sell for cash at the present good prices, by doing so are avoiding risk of

give "a literary interpretation of what Watts with larger, other eyes than ours, has seen in nature, poetry and myth and in human character." It is indeed a difficult task to make a correct estimate of a man's life and works while he is still alive, but Mr. Macmillan appears to have succeeded beyond the most sanguine expectations. The biographer's own personality becomes apparent in the early chapters, which commence with "Pre-Victorian English Art." "Few painters," he says, "have maintained so high a level over so large a surface as Watts, his finest and best pictures numbering more than two hundred and fifty. His ideas are entirely his own. Watts' treatment is not separate from his subject, meant to give the beauty of consummate skill and mastery of colors and form to an ignoble subject, but is entirely subordinate to his subject and informed by it. His pictures, it has been said, are pectoral by the illumination of his own soul, and because he has seen in them what has far transcended their hues and outlines. His mode of painting seems a kind of creation."

Of the salient facts in Watts' life it may



FROM "THE BLOOD FLIES."  
By W. A. Fraser. Copyright, 1903, by Charles Scribner's Sons.

lower prices and are saving the shrinkage in weight which occurs with the approach of mild weather. Those who cannot easily reach the market in present state of roads and weather are likely, as it now appears, to have later chances to sell to good advantage.

## Green Vegetables in Moderate Supply.

Most dealers report trade rather light, the demand being somewhat lessened by the high prices. Such changes as have occurred during the week are chiefly in an upward direction, asparagus, turnips, cabbages and tomatoes being quoted slightly higher. The cold weather interfered somewhat with shipments. Some lines of Southern truck, such as peaches and tomatoes and string beans, have been more plenty and inclined to lower prices. Such specialties as escarole, chikory and romaine are not quite so scarce and high as when last noted. Some quince squashes as high as \$2.00 per ton for best Hubbard, but buyers say they can buy all they want of the best at \$50.

He said that he was born in London in 1817, was entirely self-taught, and when barely twenty years old he exhibited his first picture at the Royal Academy. The proceeds from a prize cartoon enabled him to visit Florence and Greece. Watts, we are told, is a remarkable example of a life-long devotion to his own conception of art. No one could hire him or induce him to work privately or under conditions. He has never been tempted to swerve from the realization of his ideal. In fact, he has sacrificed everything for his ideal. He has furthermore worked to keep the soul of the nation alive to those ideals. His methods are his own. He never uses any model to help him; he paints his pictures entirely from first to last from his own imagination, and introduces no copy of any outward object to mar the ideal effect. A distinctively individual character, Mr. Macmillan's biography rouses our greatest interest in the personality of this many-sided man. He is now in his eighty-seventh year, and he has to go "softly." But with

aspect—occupying the centre of the stage. There were negro servants at Kent Fort Manor, who, we are told, were hardly thought of as slaves. "They belonged there, like the house and the trees and the family," Headlong Roderick, or "Marzo Headlong," was the name commonly applied to Claiborne, and a good Confederate he was.

In fact, Kent Fort Manor was the last and most dangerous link in a chain of Confederate forwarding posts. Walter Claiborne of Louisiana and also of the Confederate diplomatic service in London, was at this time in a place called the Devil's Tangle with dispatches of vital importance, and Roderick was riding North to free him. Thus do the characters of this story commence to work out their salvation in the clash of the North and South. While we are not led into the thick of the conflict, the atmosphere of war hovers about, and the reader who has the patience to follow the thread of the story as it winds its way slowly through a mass of detail and long-drawn-out conversation, will find that Margaret loses her heart to a brave officer, and that in the end there are wedding-bells and orange blossoms. Mr. Babcock lacks the true story-teller's art. His novel is a dismal reading. (Philadelphia: Henry T. Coates & Co.)

"What Shall We Eat," by Alfred Andrews, is a little publication that is well adapted for every-day purposes, both by those who are ill and those who want to keep well. It is a book for the home, not for the physician's office, though, doubtless, it might prove of service even there. It offers good advice regarding the diet under many varying conditions, and "Little Mary," as the stomach has been called, is likely to benefit greatly from following the instructions conveyed in this brochure, which also contains many tables bearing on the general subject of nutrition, as far as it is connected with the daily questions of food in the household. (New York: The Health Culture Company. Price, 50 cents.)

This is an absorbing story of a New York murder mystery with a remarkable solution. The story-teller, who is Richard Dallas both on the title page and in the narrative itself, is called up early one morning from his comfortable bed at his club by the unpleasant news that his friend, Arthur White, has been murdered in his apartments. Inasmuch as Dallas, together with three other mutual friends, Gilbert Little, Ned Davis and Oscar Van Buit, had been spending the evening with Davis, only a few hours before, the message was most startling. Dallas, who is a lawyer, connected with the office of the district attorney, hastened to his late friend's rooms, and there viewed the body as it lay on the divan, dressed in evening clothes. A dagger had been buried in White's back by some one who had gained an entrance to the apartments and who had evidently found Davis asleep. White's servant, Benton, had discovered the body when he made his customary early morning trip to the rooms from his own lodgings. There was a coroner's inquest, and suspicion by this time finally led to the arrest of White's cousin, Winters, a disreputable young man, whose father had practically disinherited him in favor of White. Winters had been going from bad to worse, and frequently called on White for money. This very night, it was proven, he called, and later he was seen at a gambling joint with \$500—of the four fifty-dollar bills which were missing from White's room. Winters was a pitiful object, but the police, following their custom of picking out a victim and then endeavoring to prove that he committed the crime, had little difficulty in convincing the coroner's jury that Winters was the guilty man. He was, therefore, held without bail for trial. Dallas sympathized with Winters and sought an able lawyer to represent the unfortunate young man when the trial should occur. He consulted with his boon companions and finally the choice fell on Little, who was an elderly bachelor and a lawyer who had never before handled a criminal case. The next strong scene in this book of incident is at poor Winters' trial, and after the fellow has apparently been proven a murderer, Little started the court by picturing very plausibly the real murderer, his motive and his methods, without, of course, mentioning his name. He asserted the innocence of his client and demands his acquittal. The jury retired, and when they returned the next day it was found that they had disagreed. This meant a new trial and Dallas, with the aid of Detective Miles, makes one more effort to find the real criminal. They eventually succeed, but the discovery staggers Dallas, and it comes as equally startling news to the reader of this book. In fact, "A Master-Hand" is one of those compelling novels which no reader will leave unfinished until he reaches the end—wholly oblivious of the flight of time. We are all too ready to overlook any faults in a book of this description because of the way in which it absorbs our attention. (New York: G. P. Putnam's Sons. Price, \$1.50.)

Edward Stratemeyer, who has done so much for the edification and entertainment of youthful readers, has added to his fame as a producer of juvenile literature in "Joe, the Surveyor, or the Value of a Lost Claim." The boy hero is thrown upon the world at an early age through the breaking down of his father's health, and has to endure many trials in the struggle for existence before he is befriended by a surveyor to whom he has been of assistance among the Pennsylvania mountains. Joe, while he is learning the business of his protector, unearths a raceably perpetrated upon his father and does not rest until things are set to rights. The story is an inspiring one for the young, and shows how pluck and determination may overthrow seemingly impassable barriers to success. (Boston: Lee & Shepard. Price, 80 cents net.)

## HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA.

President, Henry Stevens; Secretary, F. L. Houghton, Putney, Vt.; Treasurer, F. L. Houghton, Putney, Vt.; for information relating to Registration of Pedigrees.

FEES FOR REGISTRY.  
To Members.—Males, \$1; females, \$1. Double fees for animals over one year of age. If recorded within 6 months of date of sale, 25 cents each.  
Non-Members.—Males, \$2; females, \$1. If recorded within 6 months of date of sale, 50 cents each. If recorded after 6 months, \$1. All blanks furnished free.

Life Membership, \$25.  
Advanced Register in charge of Sept. Hoxie, as above, who will furnish information, blanks and forms for registration of pedigrees.

## Ayrshire Breeders' Association

President—George H. Tanton, Dover, N. H. Secretary—C. M. Winsor, Brandon, Vt. Treasurer—Nicholas S. Winsor, Greenville, R. I. Blanks for Registering and Transferring Ayrshire Cattle furnished free.

The Year-Book for 1904 furnished free. Private Herd Books for Twenty-Five Cows, \$1.00; postage paid; Monthly Milk Records for the Stable, pool for 100 cows, \$1.50 per 100; Blanks for extending pedigree to five generations, \$1 per head. All the above may be obtained from the Secretary, fees for Registering.—To Members, 25 cents each; entry of animals under two years old, and 25 cents for animals over two years old. Transfers recorded free. Duplicate certificates of either entry or transfer, 25 cents each. Double the above amounts in case of Non-Members.  
Herd Books, Volume 1 to 14, may be obtained from the Treasurer—\$2.50 each, postage paid.

## American Jersey Cattle Club.

OFFICES—5 W. 17TH ST., NEW YORK.  
President—Elmer A. Darling. Secretary—J. J. Hemmaway.

Blanks for Registering and Transferring Jersey Cattle; also Blanks Private Butter Test. Registered Jersey Cows, furnished free of charge upon application to the Secretary.  
Fees for Registering: To non-members, \$2 each head, male or female. To members, \$1 each head, male or female. All animals over two years old, double fee. For registration of all dead animals, \$1 each. Reported animals, 25 cents each. Transfers are recorded free, if presented within 30 days from date of delivery. Transfers presented after 30 days, \$1 each.

Price of Herd Register, \$1 per Single Volume. But-ter Test of Jersey Cows, including all tests received by the Club to Aug. 1, 1903, \$2 per Volume. Private Herd Record, 25 cents. Cloth, leather, back and corners, \$2. Pocket Herd Record, 100 pages, flexible leather, \$1.00. Transfers presented after 30 days, \$1 each.

The By-Laws of the Club, giving full rules to be followed in securing registration and transfers, mailed free on application.

## The Ontario Veterinary College, Limited.

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Affiliated with the University of Toronto.

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ANDREW SMITH, F. R. C. V. S., Toronto, Can.

R. Lillburn, Emerald Grove, Wis., breeder of the best strains of Aberdeen-Angus cattle. Established 1862. Also registered Shetland ponies.

Chester Whites.  
A fine lot of March pigs. Pairs and trios not sold. Write to W. D. HOWLAND, R. F. D. No. 1, Reddick, Ill.

Champion Herd, 1900, 1901, 1902.  
Of up-to-date prize-winning Chester Whites. This herd won more prizes in 1900, 1901 and 1902 than any other White herd in the world. If you want stock from this herd write to J. W. DORSEY & SONS, Perry, Ill.

Wanted—Prices.  
I am in market to buy long-yearling registered sheep shire rams; also 100 to 150 registered shire ewes bred to lamb in March. J. T. NOONEN, Deer Trail, Col.

Allen's Lung Balm.  
Cures deep seated Coughs and Colds, Croup and all Bronchial Troubles. \$1.00, 50c. and 25c. per bottle.

## Literature.

That Watts should have been selected from all English painters to be included in the series of "Temple Biographies," which J. M. Dent & Co. are bringing out in England, is indeed a distinction, but who shall say that it is not deserved. George Frederic Watts has, as Hugh Macmillan, his biographer, says in the preface, never painted pictures which could be called popular in the ordinary sense of the term, but he has won something better by his impressive work. This is not the first time that Watts has been "written up," for there are other books and numerous magazine articles devoted to this distinguished artist and his work. Mr. Macmillan says he aims to

unabated enthusiasm he still looks forward to the future, and he holds that there is still evidence to prove that the Hellenic spirit has not altogether passed away. The book is admirably illustrated. (New York: E. P. Dutton & Co. Price, \$1.50 net.)  
With a real tract of land giving the book its title, "Kent Fort Manor," and the name of a celebrated Maryland family—Claiborne—used to give some of the characters a semblance of life, Mr. William Henry Babcock attempts to write a civil-war novel of surpassing interest. The result is a mixture of sentiment, superstition, interminable conversations, with a dash of action here and there. The story opens on Kent Island in 1862, with Roderick Claiborne, Mrs. Claiborne and their daughter Margaret—who gives the story its romanti-







**PAGE**

**IT'S AN ACTUAL FACT**

that Fugo-Wire is twice as strong as common wire of the same size. Try it in your shop.

**SALE HOUSES: KENTZ CO. Adrian, Michigan.**

The annual meeting and election of officers of the Rhode Island Horticultural Society took place at Providence, Jan. 20.

**PAGE**

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WHY buy a second or third-class Cream Separator merely because it is well advertised or some agent talks well for it to earn a fat commission for himself?

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### The Markets.

#### BOSTON LIVE STOCK MARKETS.

ARRIVALS OF LIVE STOCK AT WATERTOWN AND BRISTOL.

For the week ending Feb. 17, 1964.

	Shotes	Fat	
	Cattle	Sheep	Veals
Last week...	3,641	10,429	28,491
This week...	3,291	10,135	28,496
One year ago...	4,019	5,738	24,309
Horses, 392.			792

#### Prices on Northern Cattle.

BEER—Per hundred pounds on total weight of hide, tallow and meat, extra, \$6.00; first quality, \$5.50; second quality, \$4.50; third quality, \$4.00; fourth quality, \$3.50; fifth quality, \$3.00; sixth quality, \$2.50; seventh quality, \$2.00; eighth quality, \$1.50; ninth quality, \$1.00; tenth quality, \$0.50.

SHOE—Per hundred pounds on total weight of hide, tallow and meat, extra, \$6.00; first quality, \$5.50; second quality, \$4.50; third quality, \$4.00; fourth quality, \$3.50; fifth quality, \$3.00; sixth quality, \$2.50; seventh quality, \$2.00; eighth quality, \$1.50; ninth quality, \$1.00; tenth quality, \$0.50.

FAT HOGS—Per hundred pounds on total weight of hide, tallow and meat, extra, \$6.00; first quality, \$5.50; second quality, \$4.50; third quality, \$4.00; fourth quality, \$3.50; fifth quality, \$3.00; sixth quality, \$2.50; seventh quality, \$2.00; eighth quality, \$1.50; ninth quality, \$1.00; tenth quality, \$0.50.

CATTLE—Per hundred pounds on total weight of hide, tallow and meat, extra, \$6.00; first quality, \$5.50; second quality, \$4.50; third quality, \$4.00; fourth quality, \$3.50; fifth quality, \$3.00; sixth quality, \$2.50; seventh quality, \$2.00; eighth quality, \$1.50; ninth quality, \$1.00; tenth quality, \$0.50.

VEALS—Per hundred pounds on total weight of hide, tallow and meat, extra, \$6.00; first quality, \$5.50; second quality, \$4.50; third quality, \$4.00; fourth quality, \$3.50; fifth quality, \$3.00; sixth quality, \$2.50; seventh quality, \$2.00; eighth quality, \$1.50; ninth quality, \$1.00; tenth quality, \$0.50.

NEW HAMPSHIRE—Per hundred pounds on total weight of hide, tallow and meat, extra, \$6.00; first quality, \$5.50; second quality, \$4.50; third quality, \$4.00; fourth quality, \$3.50; fifth quality, \$3.00; sixth quality, \$2.50; seventh quality, \$2.00; eighth quality, \$1.50; ninth quality, \$1.00; tenth quality, \$0.50.

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Western, large ash tubs...	24.00
Western, small ash tubs...	22.00
Creosote, northern first...	17.00
Creosote, western first...	17.00
Creosote, second...	17.00
Creosote, eastern...	17.00
Dairy, N. Y. and V. first...	17.00
Dairy, N. Y. and V. second...	17.00
Restored...	17.00
Boxes...	17.00
Extra northern creamery...	24.00
Extra northern creamery...	24.00
Common to good...	16.00
Trunk butter in 10 or 12 prints...	24.00
First, northern creamery...	24.00
Extra northern dairy...	24.00
Common to good...	16.00

New York twins, extra, 1/2 lb...	11.00
New York twins, first, 1/2 lb...	10.00
New York twins, late made, 1/2 lb...	10.00
Vermont twins, first...	10.00
Vermont twins, second...	10.00
Wisconsin twins, first...	10.00
Wisconsin twins, late made, 1/2 lb...	10.00
Sage...	11.00

Nearby and Cape fancy, 1/2 doz...	37.00
Eastern choice fresh...	37.00
Me. Vt. and N. H. first...	37.00
Western first...	37.00
Vt. and N. H. fair to good...	37.00
Western average...	37.00
Western, good to choice...	37.00
Southern fresh...	37.00

Houlton Hebrons, 1/2 bu...	90.00
Houlton Green Mountains, 1/2 bu...	90.00
Native Rose and Hebrons, 1/2 bu...	90.00
Vineyard, sweet, double head, 1/2 bu...	90.00

Beets, 1/2 bu...	1.00
Cabbage, native, 1/2 bu...	1.00
Carrots, 1/2 bu...	1.00
Chicory, 1/2 doz...	1.00
Escarole, 1/2 doz...	1.00
Romaine, 1/2 doz...	1.00
Lettuce, 1/2 doz...	1.00
Celery, native, choice, 1/2 doz...	1.00
String beans, 1/2 doz...	1.00
Splach, 1/2 bu...	1.00
Tomatoes, hot house, 1/2 bu...	1.00
Onions, native, 1/2 bu...	1.00
Onions, choice, yellow, 1/2 bu...	1.00
Parasols, 1/2 bu...	1.00
Native hot house cream, 1/2 bu...	1.00
Cucumbers, hot house, 1/2 doz...	1.00
Green peppers, 1/2 doz...	1.00
Egg plant, 1/2 doz...	1.00
Parley, 1/2 bu...	1.00
Squash, 1/2 bu...	1.00
Squash, Western, Hubbard, 1/2 bu...	1.00
Turnips, 1/2 bu...	1.00
Turnips, Nova Scotia, 1/2 bu...	1.00
Mushrooms, 1/2 doz...	1.00
Mint, 1/2 doz...	1.00
Leeks, 1/2 doz...	1.00
Russell sprouts, 1/2 doz...	1.00
Artichokes, 1/2 bu...	1.00
French artichokes, 1/2 doz...	1.00
Shallots, 1/2 doz...	1.00
Oyster plant, 1/2 doz...	1.00
Chives, 1/2 doz...	1.00

Apples, Northern Spy...	2.00
King, 1/2 bu...	2.00
Baldwin, No. 1, 1/2 bu...	2.00
Presque Isle, 1/2 bu...	2.00
Baldwin & Green, No. 2, 1/2 bu...	2.00
Greenings, fancy, 1/2 bu...	2.00
Common mixer, 1/2 bu...	2.00
Red Varieties, 1/2 bu...	2.00
Green cook's sorts, 1/2 bu...	2.00
Common, 1/2 bu...	2.00
Oranges...	2.00
Florida, 1/2 box...	2.00
Cranberries...	2.00
Cape Cod, 1/2 box...	2.00
Strawberries...	2.00
Florida, 1/2 qt...	2.00

Steers and cows, all weights...	1.00
Hides, south, light green salted...	1.00
" buff, in west...	1.00
Calves, 10 to 12 lbs each...	1.00
" over wintered...	1.00
Deacons and dairy skins...	1.00

Evaporated, choice...	6.00
Evaporated, fair to prime...	5.00
Sun-dried, as to quality...	3.00

Clover, Western, 1/2 bu...	1.00
" North, 1/2 bu...	1.00
" White, 1/2 bu...	1.00
" Yellow, 1/2 bu...	1.00
Alfalfa or Lucerne, 1/2 bu...	1.00
Red top, 1/2 sack, West...	1.00
Jersey...	1.00
Clear...	1.00
R. I. Bent, 1/2 bu...	1.00
Ordnance, 1/2 bu...	1.00
Blue Grass, 1/2 bu...	1.00
Timothy, 1/2 bu...	1.00
Timothy, choice, 1/2 bu...	1.00
Buckwheat...	1.00
Spring wheat, 1/2 bu...	1.00
Spring rye...	1.00

Pea, choice...	2.00
Pea, screened...	1.00
Pea, seconds...	1.00
Pea, third...	1.00
Mediums, choice hand-picked...	1.00
Mediums, screened...	1.00
Yellow peas, extra...	1.00
Yellow peas, seconds...	1.00
Red Kidney...	1.00

Hay, No. 1, 1/2 ton...	10.00
" 2, 1/2 ton...	10.00
" 3, 1/2 ton...	10.00
" clover, 1/2 ton...	10.00
" clover, mixed, 1/2 ton...	10.00
" clover, 1/2 ton...	10.00
Straw, prime rye...	10.00
Straw, old rye...	10.00
Straw, tangled rye...	10.00

Flour—The market is firm but quiet.	
Spring patents, 1/2 doz...	1.00
Spring, clear and straight, 1/2 doz...	1.00
Winter patents, 1/2 doz...	1.00
Winter, clear and straight, 1/2 doz...	1.00
Corn Meal—1/2 doz...	1.00
Granular Flax—1/2 doz...	1.00
Straw—1/2 doz...	1.00
Flax—1/2 doz...	1.00
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## Farming with Brains.

Every farmer should know how to use fertilizers. The proper way is described in our

Books on Fertilizers, Sent Free on Application

A fertilizer containing six per cent. of

# Potash

is necessary for Wheat, Oats, Corn, Rye and Grass.

GERMAN KALI WORKS, 93 Nassau Street, New York.

## CAT FOOD

The latest fashionable fad is the keeping a pet cat











## The Horse.

## Trotting the Horse Down Hill.

Many drivers think that the horse should trot down hill, because the load does not pull back upon him and apparently cannot understand the philosophy that would do otherwise, says Prairie Farmer. To trot when there is a heavy load pulling back on the traces is exhaustive to the horse's muscular energy. Trotting down hill, especially with a load in addition to its weight pushing down upon him, is far worse. The former, if not carried to excess, will be readily regained by the aid of a little rest and nourishment, but the latter jars and jams the shoulders, weakens the tendons and springs the knees, and may even bring on paralysis of the nerves and muscles. The horse left to its own inclination will slacken its pace when it comes to a decided down grade and will go carefully down the hill, unless it has been trained to a different habit under spur of the whip. If it is necessary, for some reason, to drive fast down hill, put on the brake to at least prevent the wagon pushing on the horse; if it can be made to draw a little on the traces it will help materially to lessen the injurious effects.

## Raising Heavy Horses.

A few years ago, when farmers were all raising a greater or less number of colts on the farm, conditions became such that there was a great oversupply, and naturally prices were forced down. We are now confronted with another proposition. The raising of colts is now the exception, rather than the rule, on too many farms, and we now have a good and growing market for good draft horses. There are few farmers who could not raise one or more colts each year, and derive profit by so doing.

With draft colts, they can be put to light work on our farms and be useful as well as profitable. By raising a few colts we can sell off the older horses when they get to a marketable age, and by so doing keep a young class of horses that are continually improving year by year.

The brood mare should get plenty of exercise at all times. It is the nature of the horse to be out in their air and in motion a great deal of the time. Perhaps there is no better way of exercising draft brood mares than to keep them at light, steady work, or, if we have no work for them, as is often the case during the winter months, they should have the range of a large field, or the whole farm would be better, where they get ample exercise and plenty of pure air. Horses may be kept out in this way, even in quite cold weather, without appearing to suffer any inconvenience.

As foaling time approaches, let the feed be loosening in character, and do not change the condition of the mares to any considerable extent. If they have been in the habit of working, it is safe to keep them working right up to foaling time.—L. P. Martiny, North Freedom, Wis.

## The Percheron Draft Horse.

In the establishment of this French breed of draft horses that guiding ideal has been to develop an active and durable type of draft horse suited for drawing loads at a rapid pace. The degree to which weight is desirable in the modern draft horse has resulted in the production of a heavier type with these characteristics yet in evidence. The modern type of this breed is short legged, compactly and stoutly built. The representatives which best exemplify the type show an active temperament, intelligent heads, short, full crested necks, with deep body and wide crown. To meet the requirements of their patrons they must possess with this abundance of quality, attractive style and active movement. The modern type shows a difference from the original in being black in color and somewhat closer to the ground than those first imported.

The original gray Percheron had for its peculiar characteristics an unusual combination of strength and active action, with style and endurance. They had an abundance of style, with round bodies and an exceptional quality of bone. The highest type of this breed in the present show rings should be typical of an active draft horse with the quality and the substance to justify durability. To serve this purpose to the fullest extent the necessity of regular and straight action with properly set limbs should not be a secondary consideration in any show ring, and in the mind of the judge no amount of flashy action and toppling should be allowed to overbalance these features. The weight that is necessary in representatives of this breed should be made up of a desirable quality of bone with muscle in those parts where real strength resides, and not by a development in regions that have little to do with pulling power.—J. A. Craig.

Annually, in London, a public exhibition of work horses is held in Regent's Park. The horses, groomed to the last hair, their manes and tails decorated with gay ribbons, their harness clean and bright, and carts, wagons and drays all spick and span, are in speckled at the gates by veterinary surgeons, and if they pass there are reviewed by street department and other city officers, and the drivers of the best-coated-for-horses are awarded substantial money prizes. This annual ceremony is believed to have great influence in the direction of humane treatment of the animals which work in the streets in London.

In his advice to novices Ware, the well-known horseman, criticizes harshly the "monkey-on-a-stick" position which has recently become fashionable among drivers—and with good reason. "Sit squarely down on your seat or cushion," he says, "not on the end of your spine, with your feet stuck out in front as if riding a boat, but upright and with the legs forming an angle at the base of the spine, which will make you, for comfort's sake, hollow your back, and which position, in turn, will give you a 'feel' to wrist, forearm and hand which you never knew before." What could be clearer than this?

## Notes from Washington, D. C.

The whirlwind of proposed good roads legislation continues. In the last ten days five new good roads bills have been introduced in Congress, one by Representative Brownlow, somewhat modifying his original bill, another by Senator Lattimer of South Carolina, another by Senator Gallinger of New Hampshire and another one by Representative Currier of New Hampshire. Each of these bills appropriates \$24,000,000 and provides for a Bureau of Public Highways, the terms of the bills being slightly different. Representative Maddox of Georgia has brought forward a unique measure to distribute the "surplus" in the treasury, not exceeding \$25,000,000, among the various States and Territories on a basis of population for the improvement of their postal roads. The money is to be turned over to



THREE HANDSOME PERCHERON MARES.  
Owned by Hartman Stock Farm, Columbus, Ohio.

the State authorities, but they are required to make annual reports to Congress.

This may be popularly endorsed as a good means of disposing of any surplus, but the lack of authority given by the bill to the Federal government to supervise such road construction is believed to be a fatal defect. Some of the States would undoubtedly make good use of the money turned over to them, while some others might not.

The Department of Agriculture is about to issue a bulletin containing an article on the "Keeping Quality of Butter." Butter spoils by reason of the work of microscopic organisms, and the problem, it is stated, is to exclude them or destroy them when they are present. The article says: "Butter makers understand pretty well that pasteurization is often of very great value in making butter. But why pasteurize the milk or cream and then wash the butter with dirty, germ-laden water?" and notes a test made at the Government Iowa station upon ripened cream, which was divided into two equal parts. One lot was churned and the butter washed with ordinary well water; the other lot was washed with water boiled and cooled. The latter butter kept very much longer than the butter washed with unboiled water. By pasteurizing the cream, as well as the wash water, it was found that the keeping quality of the butter was still more improved. When the butter made from unpasteurized cream, washed with ordinary water, kept thirty-four days, the butter made from pasteurized cream and washed with boiled water kept seventy-five days. The estimated cost of pasteurizing both the milk and the wash water is one cent per pound of butter produced.

The work of the Department of Agriculture which promises the most to the American farmer is the improvement of the products he now grows or the introduction of new products to favorably displace them. Excellent work is being done in the breeding up and improvement of American farm plants and animals, but undoubtedly of more importance are the agricultural explorations being made in foreign lands and the procurement of new plants and seeds. In this connection Barbour Lathrop has, during the past seven or eight years, done the country a service, carried forward a plan likely to be of more real benefit to the country than almost any other philanthropic scheme of the day. He has at the expense of his own pocket and time explored the remote corners of the world in search of agricultural products which might be of use in the upbuilding of American farming. Although this plan has been pursued purely as a private undertaking and for Mr. Lathrop's personal gratification, he has gone about it in the most systematic manner, associating with him a brilliant young botanist and linguist, and arranged with the Department of Agriculture to distribute the seeds and plants which he has found and purchased at a cost of thousands of dollars. The department, through its various agencies in different parts of the country, is in a position to give the most thorough and exhaustive tests to the strange things which have been sent in by Mr. Lathrop from Europe, Asia, Africa and the islands, things often unheard of in this country, but which have been grown as staple crops for hundreds of years by the inhabitants of those foreign lands. Mr. Lathrop has been around the world fourteen times, and his work is probably a unique instance of a wealthy man devoting his fortune, knowledge and energy to assisting the farmers of his country without other object in view than the general benefit to the nation. Among the crops which Mr. Lathrop and his assistant, Mr. Fairchild, have introduced which promise much for American agriculture are the Sumatra tobacco, several seedless raisin grapes, the improved black oats and Hanna barley, macaroni wheats, the Jordan almond, several tropical fruits for Porto Rico and dozens of other products which appear to be undoubted improvements on the varie-

ties and species now cultivated in this country.

The Public Lands committee has reported favorably a bill to preserve two forests of the giant red-wood trees (*Sequoia Gigantea*) of California, by purchase from the present owners who are contemplating cutting them for lumber. These trees are the largest and most majestic in the world, and are one of the few remaining flora of the pre-glacial period. Some of the largest of them are over thirty feet in diameter and much older than the Christian era. John Muir, the gentle naturalist, describes them as follows:

"Under the most favorable conditions these giants live five thousand years or more, though few of even the larger trees are more than half as old. I never saw a big tree that had died a natural death; being accidents, they seem to be immortal, being exempt from all the diseases that afflict and kill other trees. Unless destroyed by man, they live on indefinitely until burned, smashed by lightning, or cast down by storms, or by the giving way of the ground on which they stand. The age of one that was felled in the Calaveras grove for the sake of having its stump for a dancing floor was about 1300 years, and its diameter, measured across the stump, twenty-four feet inside the bark."

"Another that was cut down in the Kings-river forest was about the same size, but nearly a thousand years older (2200 years), though not a very old-looking tree. It was felled to procure a section for exhibition, and thus an opportunity was given to count its annual rings of growth. The colossal scarred monument in the Kings-river forest mentioned above is burned half through, and I spent a day in making an estimate of its age, clearing away the charred surface with an axe and carefully counting the annual rings with the aid of a pocket lens. The wood rings in the section I laid bare were so involved and contorted in some places that I was not able to determine its age exactly, but I counted over four thousand rings, which shows that this tree was in its prime, swaying in the Sierra winds, when Christ walked on earth. No other tree in the world, as far as I know, has looked down on so many centuries as the Sequoia, or opens such impressive and suggestive views into history."

In some testimony before the Senate committee on patents in 1879, an interesting description is given by a Mr. Coffin of the New England plow used by his father in the early part of the century. "It was about twelve feet long. It required eight to ten oxen to draw it, one man to ride upon the beam to keep it in the ground, and an extra man to follow behind with a heavy iron hoe to dig out the balks and skips."

GUY E. MITCHELL.

## Money in Raising Hay.

(Address given Jan. 28 to Middlesex (Ct.) Pomona Grange by G. M. Clark of Higganum, Ct.)

I shall tell you how to make money in grass culture. Let others tell us how to make money in other products. The best results cannot be obtained in any science except by careful study and hard work. To get at the bottom we must work, must observe everything else learn to love work. It is better for one to take but one thing at a time and follow it long enough to get positive facts. Life is too short for one to find many, and an hour is too short to describe them. I am here to tell you what I can, in a few minutes, of what I have found in eighteen years in the cultivation of grass. The farms furnish the brains. Sunshine and free air stay the tide. We get that on the farms. We can make money there. But we must go to work in a scientific manner on the farms.

In the production of all kinds of crops we must have more intense cultivation. The Clark's outways will do it. Others may, but it must be done. No matter what crops, the more we cultivate the better. Cultivation and civilization go hand in hand. We get our living from the earth, mostly from the farms. I will now give you the results of intense cultivation on a few acres of poor land, what farmers here and everywhere call worn-out lands. It was as poor as any in Connecticut. I also shall give all of you one of my grass circulars and other printed matter, which will tell you how to make money on such kind of land, especially how to grow grass. Every farmer in the country can have one by sending a two-cent stamp.

With hay figured at \$8.50 per ton you can make \$20 a year per acre, at \$18 per ton you can make \$80, an average of over \$50 an acre per year, and grass is a very sure crop. On pages 13, 14, 15, 16 and 17 of the grass circular you will find details. I sow redtop and timothy in equal parts, fourteen quarts each kind of seed to the acre. They grow well together and produce a ton and a half more hay to the acre when thus sown. The circular tells all about it. My first experience on sixteen acres in two crops produced over one hundred tons, over six tons to the acre. On one flat section of seven-eighths of an acre covered with clay gravel, hardpan, no vegetation on it, at one seedling, in fourteen years, twenty-eight crops produced 1144 tons of dry hay, a net profit of \$1200 over \$85 per acre. A section of five-eighths of an acre, in two crops this year, gave a rate of 21,400 pounds to the acre, at \$16 per ton, gave a net profit of \$117.

Not a year in the eighteen but what some

one or more acres of this field have produced more than six tons, sometimes over seven tons first crop. Again, there never has been a year in which less than six tons have been grown in two crops. This is not due to favorable conditions to start with, it is due to intense cultivation, fertilizer and care. The outside cost of hay does not exceed \$2 for labor, \$3 for fertilizer, total cost per ton for well-dried hay in barn, \$5.

The most remarkable sample will be shown this year from a quarter-acre section where the first crop out was over four feet in height and weighed 2471 pounds. Second crop out this year from the same field was over three feet high and weighed 2240 pounds, making 7½ feet in height. Each crop was fully headed and blossomed. The third crop did not blossom, but weighed 1750 pounds, at the rate of 3½ tons to the acre. The total weight of the three crops from this quarter-acre section this year was 6401 pounds, or at the rate of 25,644 pounds per acre, and a total growth of over nine feet. This quarter-acre section at \$16 per ton produced a rate of \$136 net profit per acre. The general average of my field for eighteen years has given a net profit of over \$50 per year per acre, hence I say we can, if we will, make money in grass culture.

Spinaoh is usually sown in March, unless there is much frost in the ground; it is now in this section sown broadcast. If sown in drills the ground must be more thoroughly prepared.

## Short-horns,

AT "LIVE AND LET LIVE" PRICES.  
Scotch and highly Scotch topped cows and heifers bred or open. Bulls 7 months to 34 months. Bala faction guaranteed.

J. D. WILLIAMS, Vincennes, Ind.

## SPAR CREEK

## SHORT-HORNS.

Consist of choice Scotch and Scotch-topped cattle of the most approved breeding and type. Day Monarch and St. Valentine blood combined. The bull product of the herd is for sale.

GREEN BROS., Farmland, Ind.

## FOR SALE—STALLIONS

One Belgian, seven years old; one Percheron, three years old. Sound and best of breeders. Will give guarantee with both horses.  
Address: BOX 344, Napoleon, O.

## FOR SALE

For the next sixty days I will sell colts, fillies and brood mares at very low prices, or will trade for unnumbered lands in Iowa and Minnesota. Send for catalogue.  
Address: G. W. SHERWOOD, St. Paul, Minn.

## Duroc-Jersey Pigs.

March and April farrow, both sexes, unrelated C. C. McCUTCHEN, Canton, Ill.

## Red Polled Cattle.

The farmer's breed. Best beef, rich milk. Auburn herd headed by the prize-winning cow superior Bradley 427, O. I. Weight, 880 lbs. Producing milk strains. Stock for sale.  
JAMES REANEY, JR., White Sulphur, Delaware Co., O.

## A Clever Rig

Attracts considerable attention, especially if everything is in keeping. A harness, a cart, whip, driver, and all must be quite like the grooming and attention shown to the horse. A horse to be lively, well and attractive must be properly fed. Glycerine will nourish his skin and produce soft, silky hair. Perfectly harmless. Article of unquestionable value. Found in the best stables. Printed matter if you want it. Price \$2. delivered.

W. K. FARMS CO., BOSTON, MASS.

## Queen Quality Herd of Registered Durocs.

We are offering well-bred early spring pigs, choice gilts ready to breed, June pigs of good blood and breeding. Also some very fine August pigs, either sex. Everything with good color, good bone, lengthy and strictly Queen Quality.  
J. K. JORDAN, Palestine, Ill.

Walnut Grove Herd of Poland-Chinas. Pigs for sale at reasonable prices, sired by Ramsey's L. & W. Perfection, J. J. Big Chief, L. & W. Perfection. Top Chief's Best and out of sows that have been producing winners.  
J. M. RAMSEY, Mt. Carmel, Wabash Co., Ill.

Central No. 45, G. C. VOGE, JR., breeder of the up-to-date EXCELSIOR HERD OF DUROCS, West Alexandria, O.

Duroc-Jerseys. We breed the large, growthy, heavy kind. Spring pigs of either sex now ready to ship.  
J. J. LORTON, Union City, Ind.

## J. C. KEITH

1000 Main St., Brockton, Mass.

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